

Comparisons of Job Characteristics

Focus Occupation: **Millwrights (49-9044)**

Associated Occupation: **Machinists (51-4041)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 89

Focus Occupation: Millwrights (49-9044)

Associated Occupation: Machinists (51-4041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mechanical	6.8	18.0	22.9	>>	Current knowledge level is likely more than sufficient
Mathematics	9.2	14.2	15.8	>	Current knowledge level is likely sufficient
Production and Processing	6.0	12.7	8.2	<<	Extensive education and/or training may be required
Design	5.2	11.2	11.0	0	Current knowledge level may be sufficient
Engineering and Technology	5.7	10.2	11.2	0	Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 57

Focus Occupation: Millwrights (49-9044)

Associated Occupation: Machinists (51-4041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Quality Control Analysis	5.9	12.6	9.8	<<	Extensive development of skills in this area may be required
Operation Monitoring	6.6	12.0	11.6	0	Current skill level may be sufficient
Operation and Control	5.4	11.1	10.0	<	A higher skill level may be required
Troubleshooting	4.5	10.2	11.1	0	Current skill level may be sufficient
Equipment Maintenance	3.5	9.3	11.9	>	Skill level is likely sufficient
Equipment Selection	3.3	8.6	7.6	<	A higher skill level may be required
Repairing	3.4	8.5	11.1	>>	Skill level is likely more than sufficient
Installation	1.7	6.0	13.7	>>	Skill level is likely more than sufficient

Technology Design	2.6	6.0	3.8	<<	Extensive development of skills in this area may be required
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The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities	Similarity of Focus Occupation to Associated Occupation: 78
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Focus Occupation: Millwrights (49-9044) Associated Occupation: Machinists (51-4041)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Control Precision	6.6	13.3	12.5	0	Current ability level may be sufficient
Finger Dexterity	7.6	11.6	12.0	0	Current ability level may be sufficient
Manual Dexterity	6.5	11.1	11.9	0	Current ability level may be sufficient
Multilimb Coordination	6.0	10.7	12.2	>	Current ability level is likely sufficient
Reaction Time	4.8	10.1	10.2	0	Current ability level may be sufficient
Hearing Sensitivity	5.6	9.3	9.4	0	Current ability level may be sufficient
Rate Control	3.8	8.6	8.6	0	Current ability level may be sufficient
Wrist-Finger Speed	3.2	7.3	5.8	<	Some improvement in abilities may be required
Sound Localization	2.2	6.2	4.4	<<	Extensive improvement in abilities may be required
Speed of Limb Movement	3.2	6.1	8.3	>>	Current ability level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common	Similarity of Focus Occupation to Associated Occupation: 82
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Focus Occupation: Millwrights (49-9044) Associated Occupation: Machinists (51-4041)	
Work Activities	Exclusivity of Activity
Fabricate, assemble, or disassemble manufactured products by hand	11
Install equipment or attachments on machinery or related structures	48
Lay out machining, welding or precision assembly projects	63
Maintain or repair industrial or related equipment/machinery	39
Maintain welding machines or equipment	70
Move or fit heavy objects	8
Program computer numerical controlled machines	89
Read blueprints	10
Read specifications	23
Read technical drawings	7
Set up and operate variety of machine tools	62

Set up computer numerical control machines	69
Understand technical operating, service or repair manuals	6
Use arc welding equipment	62
Use hand or power tools	2
Use knowledge of metric system	39
Use robotics systems technology	78
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 92

Focus Occupation: Millwrights (49-9044)

Associated Occupation: Machinists (51-4041)

Tools and Technologies	Exclusivity
Bandsaws and accessories	26
Business function specific software	1
Computers	1
Cutting and crimping and punching tools	3
Cutting tools	18
Drafting supplies	9
Face and head protection	7
Forming tools	2
Holding and clamping tools	3
Hydraulic presses	25
Industry specific software	1
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Marking tools	11
Measuring and layout tools	3
Mechanical instruments	14
Metal bending and forming machinery	17
Metal working machinery attachments	35
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Sealing tools	21
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Tool attachments and accessories	12
Viewing and observing instruments and accessories	4

Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.